

Product datasheet for **RG228406**

MTF2 (NM_001164391) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTF2 (NM_001164391) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MTF2
Synonyms:	dj976O13.2; M96; PCL2; TDRD19A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG228406 representing NM_001164391
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTTATATGTGACAAGTGTG
 GCCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCCAGTGTGATTGATTGAGATGAAAAATG
 GCTCTGTCGCGCAGTGTGTTTTGCAACAACAACAAGAGGGGTGGTGCACCTTAAGAAAGGACCAAAATGCC
 AAAGCATTGCAAGTCATGAAGCAGACATTACCCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCATA
 AAACCAATGTCCAGCAGTGTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTG
 CTGCAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAAGCCAATGCTATTTGGAGAC
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 GGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATTTCATAAGAAGAAATACTTTGATTCTGA
 ACTTGAGCTTATGACATACATTAATGAAAACCTGGGATAGATTGCACCCTGGAGAGCTGGCAGACACACCA
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 CAAAGCAGAGAAAGAACCTGAAGGAACATCTCATGAATTTAAAATTAAGGCAGAAAGGCATCCAAACCT
 ATATCTGATTCAGGGAAGTAAGCAATGGCATAGAAAAAAGGAAAGAAAAAATCTGTAGGTCGTCAC
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 GAATCTACTTTGGATTTACCTTGTTCTATAGGGAGAAGTACCTCGTCTAGCATTTCAGGACATTTGGAT
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 GAAGATTATCAGTTTGTGAAGTCAACACAGAGATTCTGAATAACTTAGCAGATCAGGAGTTACAACCTCA
 ATCATCTAAAGAAGTCCATTACCAGTTATTTGGTGTGTCAGGTAGAATAGCATGTGGCGAAAAATACCG
 AGTTTTGGCACGTCGGGTGACACTTGTGAAAGGTGCAGTATCTTGTGGAATGGGAAGGAGCAACTGCA
 TCC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

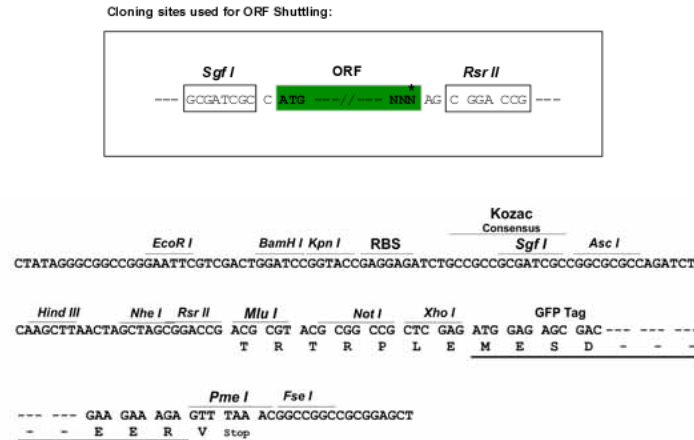
>RG228406 representing NM_001164391
 Red=Cloning site Green=Tags(s)

MVCTICQEEYSEAPNEMVICDKCGQGYHQLCHTPHIDSSVIDSDEKWLCRQCVFATTTKRGGALKKGPNA
 KALQVMKQTLPYSVADLEWDAGHKTNVQQCYCYCGGPGDWYLMKLQCKCKQWFHEACVQLQKPLFGD
 RFYTFICSVCSGPEYLKRLPLQWVDIAHLCLYNLSVIHKKKYFDSELELMTYINENWDRLHPGELADTP
 KSERYEHLVLEALNDYKTMFMSGKEIKKKKHLFGLRIRVPPVPPNVAFKAEKEPEGTSHEFKIKGRKASKP
 ISDSREVSNGIEKKGKKKSVGRPPGYPYTRKMIQKTAEPDLLDKESISENPTLDLPCSIGRTEGTAHSNNTS
 DVDFTGASSAKETTSSSISRHYGLSDSRKRTRTGRSWPAAIPHLRRRRGRLPRRALQTQNSEIVKDDDEGK
 EDYQFDELNTEILNLDLADQELQLNHLKNSITSYFGAAGRIACGEKYRVLARRVTLDGKVQYLVEWEGATA
 S

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_001164391

ORF Size: 1473 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001164391.1](#), [NP_001157863.1](#)

RefSeq Size: 4064 bp

RefSeq ORF: 1476 bp

Locus ID: 22823

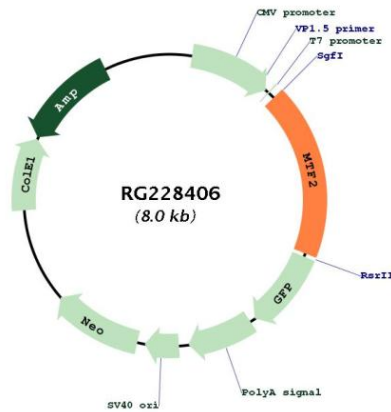
UniProt ID: [Q9Y483](#)

Cytogenetics: 1p22.1

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: Polycomb group (PcG) that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex. Acts by binding to H3K36me3, a mark for transcriptional activation, and recruiting the PRC2 complex, leading to enhance PRC2 H3K27me3 methylation activity. Regulates the transcriptional networks during embryonic stem cell self-renewal and differentiation. Promotes recruitment of the PRC2 complex to the inactive X chromosome in differentiating XX ES cells and PRC2 recruitment to target genes in undifferentiated ES cells. Required to repress Hox genes by enhancing H3K27me3 methylation of the PRC2 complex. In some conditions may act as an inhibitor of PRC2 activity: able to activate the CDKN2A gene and promote cellular senescence by suppressing the catalytic activity of the PRC2 complex locally. Binds to the metal-regulating-element (MRE) of MT1A gene promoter (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG228406